

WHAT IS CLAIMED IS:

1. A multiwell plate, comprising:
a frame including a plurality of wells formed therein, each well including:
a first well having a relatively large volume; and
a second well having a relatively small volume positioned such that the
second well is suspended above at least some portion of the first
well.
2. The multiwell plate of Claim 1, further comprising an access port that allows
fluid communication between the first well and an external environment.
3. The multiwell plate of Claim 1, wherein said second well has a concave shape.
4. The multiwell plate of Claim 3, wherein said second well has a hole
therethrough at a lower most point whereby said hole is sized such that liquid is
prevented from passing through due to surface tension.
5. The multiwell plate of Claim 1, wherein said frame has a footprint capable of
being handled by a robotic handling system.
6. The multiwell plate of Claim 1, wherein each well is positioned on said frame
so as to enable a liquid handling system to automatically deposit a sample solution into
said second well and to automatically deposit a reagent solution into said first well.
7. The multiwell plate of Claim 1, further comprising a seal that is positioned over
said plurality of wells.
8. The multiwell plate of Claim 1, wherein said multiwell plate is manufactured
from cyclo-olefin.

9. The multiwell plate of Claim 1, wherein said frame and said plurality of wells form a multi well high-throughput protein crystallography plate.
10. A protein crystallography plate, comprising:
a frame including a plurality of wells formed therein, each well including:
a first well including a relatively large reservoir capable of receiving a reagent solution;
a second well including a relatively small reservoir having a substantially concaved form capable of receiving a protein solution and a reagent solution, said second well located over at least a portion of said first well;
wherein said reagent in said first well has a higher concentration than the reagent solution within said second well; and,
wherein the protein solution and the reagent solution within said second well interact with the reagent solution within said first well via a vapor diffusion process which enables the formation of protein crystals within said second well.
11. The multiwell plate of Claim 10, further comprising an access port that allows fluid communication between the first well and an external environment.
12. The multiwell plate of Claim 10, wherein said second well has a hole therethrough at a lower most point whereby said hole is sized such that liquid is prevented from passing through due to surface tension.
13. The protein crystallography plate of Claim 10, wherein said frame has a footprint capable of being handled by a robotic handling system.
14. The protein crystallography plate of Claim 13, wherein said robotic handling system is a Society of Biomolecular Screening compatible robotic handling system.

15. The protein crystallography plate of Claim 10, wherein each well is positioned on said frame so as to enable a liquid handling system to automatically deposit a sample solution into said second well and to automatically deposit a reagent solution into said first well.
16. The protein crystallography plate of Claim 10, further comprising a seal that is positioned over said plurality of wells.
17. The protein crystallography plate of Claim 10, wherein said frame and said plurality of wells are manufactured from cyclo-olefin.